RF AMPLIFIER
MODEL *TM6183*

Available as:
TM6183, 4 Pin TO-8 (T4)
TN6183, 4 Pin Surface Mount (SM3)
FP6183, 4 Pin Flatpack (FP4)
BX6183, Connectorized Housing (H1)

Features

- High Gain: 28.5 dB Typical
- Low Noise Figure: <4 dB Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	10 - 1000 MHz	10 - 1000 MHz
Gain @ 700 MHz (dB)	28.5	27.5 Min.
Power @ 1 dB Comp. (dBm)	+14.0	+13.0 Min.
Reverse Isolation (dB)	-36	-34 Min.
VSWR In Out	<1.5:1 <1.5:1	2.0:1 Max. 2.0:1 Max.
Noise Figure (dB)	<4.0	5.0 Max.
Power Vdc mA	+15 60	+15 80 Max.

Note: Care should always be taken to effectively ground the case of each unit.

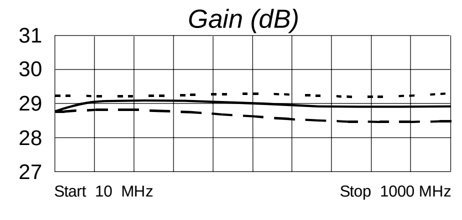
Typical Intermodulation Performance at 25 ° C

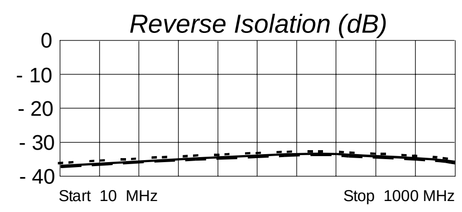
Second Order Harmonic Intercept Point ...... +37 dBm (Typ.)
Second Order Two Tone Intercept Point .... +32 dBm (Typ.)
Third Order Two Tone Intercept Point .... +25 dBm (Typ.)

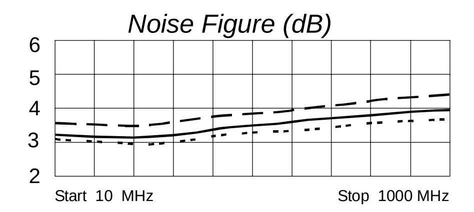
Maximum Ratings

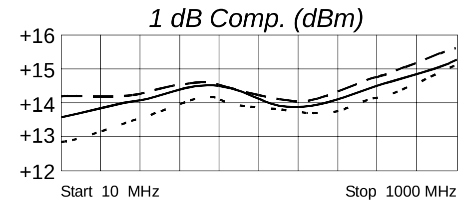
Ambient Operating Temperature .... -55ºC to + 100 ºC
Storage Temperature .... -62ºC to + 125 ºC
Case Temperature .... + 125 ºC
DC Voltage .... + 18 Volts
Continuous RF Input Power .... + 6 dBm
Short Term RF Input Power...... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power.................... 0.2 Watt (3 µsec Max.)

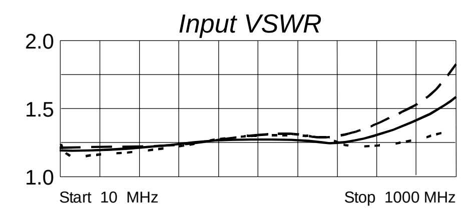
Typical Performance Data

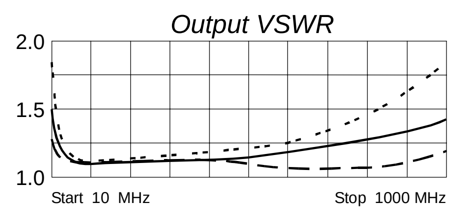












Legend ——— + 25 ºC — — — + 85 ºC - - - - - - -55 ºC

Linear S-Parameters

FREQ. MHz	S11 Mag.	S11 Deg.	S21 Mag.	S21 Deg.	S12 Mag.	S12 Deg.	S22 Mag.	S22 Deg.
10	.23	5	27.57	5	.01	16	.15	153
109	.24	-26	28.31	-27	.01	9	.12	131
208	.22	-50	28.44	-53	.01	7	.13	99
307	.21	-76	28.41	-79	.01	7	.16	68
406	.18	-102	28.31	-105	.01	1	.17	40
505	.16	-130	28.09	-131	.01	1	.18	13
604	.12	-158	27.54	-158	.01	7	.18	-17
703	.08	177	27.20	176	.01	-6	.16	-52
802	.05	163	27.48	149	.01	-3	.15	-99
901	.03	-145	27.35	120	.01	-17	.15	-160
1000	.11	-149	27.77	87	.01	-18	.19	137



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